



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,126	07/09/2004	Stephen Ray Foor	BA9297USPCT	5564

7590 05/30/2007
David E Heiser
E I du Pont de Nemours & Company
Legal Patents
Wilmington, DE 19898

EXAMINER

SASAN, ARADHANA

ART UNIT	PAPER NUMBER
----------	--------------

1609

MAIL DATE	DELIVERY MODE
-----------	---------------

05/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,126

Applicant(s)

FOOR ET AL.

Examiner

Aradhana Sasan

Art Unit

1609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) 3, 12, 14, 16 and 18-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-11, and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/6/2004, 12/08/2006, 02/15/2007.

DETAILED ACTION

1. Receipt is acknowledged of applicant's response to Restriction Requirement filed on 05/09/2007.

Status of Application

Response to Election/Restriction

2. Applicant's election of Group II in the remarks filed on 05/09/2007 is acknowledged. Group II contains claims 1, 2, 6-11 (all partially), and claims 4 and 5 (both complete), drawn to composition for controlling plant diseases caused by fungal plant pathogens comprising (a) at least one compound of formula I of claim 1, N-oxides and agriculturally suitable salts thereof and (b) is a compound acting at the bc_1 complex of the fungal mitochondrial respiratory electron transfer site. Applicant's submission that claim 7 should be completely included in Group II is not persuasive. In claim 7, although at least one compound selected from (b2) is included in the composition, in addition, at least one compound selected from (b1), (b3), (b6), (b7), (b8) or (b9) is also included. As stated in the restriction requirement, selecting at least one compound from (b1), (b3), (b6), (b7), (b8) or (b9) in addition to (b2) constitutes separate technical features and the search involved for each of these compounds would be different.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 13 and 15 are cancelled. Claims 3, 12, 14, 16 are not elected.
4. New claims 17-22 were added. However, claim 18 discloses a composition with component (a), (b2), and at least one compound that is from a non-elected group. Therefore, claim 18 and the dependent claims 19-22 constitute a patentably distinct

Art Unit: 1609

invention from the elected group (which includes a composition with components (a) and (b2) only of formula I). For this reason, claims 18-22 are withdrawn from consideration.

5. Claims 1, 2, 4-11, and 17 are being presented for examination.

Information Disclosure Statement

6. The information disclosure statements (IDS) submitted on 12/06/2004, 12/08/2006, 02/15/2007 were filed. The submissions are in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the examiner is considering the information disclosure statements.

See attached copy of PTO-1449.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moloney et al. (US 6,503,933) in view of Bereznak et al. (US 6,066,638), and further in view of Jordan et al. (Pesticide science 55:105-118 (1999)).

The claimed invention is a composition for controlling plant diseases caused by fungal plant pathogens comprising (a) at least one compound of formula I of claim 1, N-oxides and agriculturally suitable salts thereof and (b) a compound acting at the *bc₁* complex of the fungal mitochondrial respiratory electron transfer site.

Moloney discloses compounds that are phytopathogenic fungicides with the same structure as formula I of the instant application. Formula I of Moloney has substituents that are included in part (a) of Formula I of the instant application (Col. 1, lines 7-50). Component (a) of Formula 1, as disclosed in instant claim 17, is 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, is disclosed by Moloney in Col. 9, Table 1, Compound 21.

Moloney does not expressly teach a compound acting at the bc_1 complex of the fungal mitochondrial respiratory electron transfer site.

Bereznak teaches fungicidal pyrimidinones. An example of an "agricultural protectant" is 5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione (Col. 69, lines 61-63). This compound can be mixed with fungicidal pyrimidinones "for better control of plant diseases caused by fungal plant pathogens" (Col. 69, lines 51-52). This compound is famoxadone. As Jordan teaches, famoxadone is an inhibitor of "mitochondrial electron transport, specifically inhibiting the function of the enzyme ubiquinol:cytochrome c oxidoreductase (cytochrome bc_1) (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, as disclosed by Moloney, and combine it with an "agricultural protectant" famoxadone (5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione) as taught by Bereznak and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because the composition of formula I(a) as taught by Moloney, can include additional active

Art Unit: 1609

ingredients such as compounds with fungicidal properties (Moloney, Col. 3, lines 29-32).

Furthermore, Bereznak also teaches the advantage of combining compounds with fungicidal properties as having "an even broader spectrum of agricultural protection" (Col. 68, lines 58-64).

Regarding instant claims 1, 2, and 17, the composition comprising components (a) and (b) of formula I would have been obvious to one with ordinary skill in the art over Moloney in view of Bereznak. As stated above, Moloney teaches component (a) of formula I, and Bereznak teaches component (b) of formula I.

Regarding instant claims 4-8, component (b2) of formula I (famoxadone) would have been obvious to one with ordinary skill in the art given the famoxadone (5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione) teaching of Bereznak. The weight ratio of component (b2) to component (a) would have been obvious to one with ordinary skill in the art because during the process of routine experimentation, titration of various levels of components would be carried out in order to optimize the efficacy of the composition in controlling fungal pathogens in plants.

Regarding instant claims 9-11, the method for controlling plant diseases by applying a fungicidally effective amount of the composition would have been obvious to one with ordinary skill in the art. Moreover, Bereznak teaches applying effective amounts of the fungicidal composition to plants or portions of plants to control plant disease (Col. 70, lines 41-47). Since broad-spectrum agricultural protection is possible by combining fungicidal components in a particular composition, one with ordinary skill in the art would formulate the composition to control specific fungal pathogens.

Art Unit: 1609

Bereznak includes *Plasmopara viticola* and *Phytophthora infestans* as fungal pathogens (Col. 68, lines 37-38).

Double Patenting

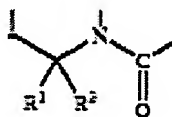
9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

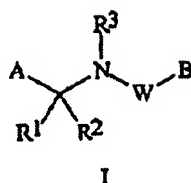
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, and 4-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6-9, 11-14 of copending Application No. 10/501,122 ('122 hereinafter) and over claims 1, 6-9, 11-14 or copending Application No. 10/501,853 ('853 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other.

The core of formula I from '122 and '853 is:



Formula I of the instant application is:



Since the core of the compound is the same as that of the compounds in copending applications, it would be obvious to a person having ordinary skill in the art that the fungicidal activity of these compounds resides in the core structure. The substituents will not affect the fungicidal activity of these compounds. One with ordinary skill in the art can use a pyridinyl ring as the substituents for B in formula I of the instant application.

Since the instant application claims a composition comprising a compound of Formula I, it is obvious over the claims of '122 and '853, and they are not patentably distinct over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

1. No claims are allowed.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

Art Unit: 1609

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang, can be reached at 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JANET L. ANDRES
SUPERVISORY PATENT EXAMINER